#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010644 Address: 333 Burma Road **Date Inspected:** 03-Dec-2009

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Tu Jun **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component: OBG/TOWER** 

# **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY YARD

#### ULTRASONIC INSPECTION

### **OBG SEGMENT 2WEST**

This Quality Assurance (QA) Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF Ultrasonic Testing (UT) department for detection of planar transverse indication.

Ultrasonic Testing (UT) performed on repair areas of the weld between edge panel and deck panel (cross beam side) (SEG007-029, 045, CA102-002, 004, 006) of OBG segment 2 West utilizing scanning pattern A, B, C and D (Fig 6.7). American Bridge Fluor (ABF) request number was 12022009-1. During the ultrasonic inspection this Quality Assurance (QA) Inspector found 1 transverse linear indication that had not identified by ABF.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated 12/03/2009 for further information on inspections.

# WELDING INSPECTION REPORT

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#### **BAY** #10

This QA Inspector randomly observed the following work in progress.

#### SOUTH TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welders 040581 and 040580 performing Shielded Metal Arc Welding process for the weld SSTL4-1B/L-2A located on PCMK corner weld between skin D and skin E. ZPMC QC Mr. Wang Hao monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F) Repair. The critical weld repair report identified as TCWR-475.

#### TRIAL ASSEMBLY YARD

This QA Inspector randomly observed the following work in progress.

## **OBG SEGMENT 6BE-6CE**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 220067 performing Flux Cored Arc Welding process for the weld OBE6A-004 located on PCMK deck panel splice weld between OBG segment 6BE and 6CE. ZPMC QC Mr. Wang Li Yang monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-223 (2) 1T-2.

#### BLAST SHOP #4

#### VISUAL INSPECTON

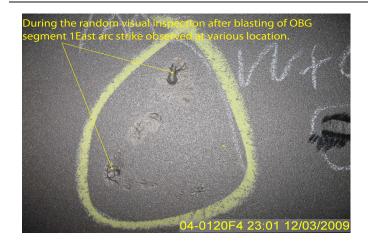
## **OBG SEGMENT 1EAST**

This Quality Assurance (QA) inspector performed random visual inspection after blasting along with Caltrans Quality Assurance (QA) Inspector Mr. Paul Dawson on the re-blasted area of side panel from panel point 8.5 to panel point 9, bottom panel splice weld between OBG segment 1AAE and 1AE and the starting portion of segment 1East adjacent to bottom panel from inside only. During the inspection we found normal minor gouges, arc strikes, pinhole, undercut. ZPMC Inspection request number was 2110. See attached photos for additional information.

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No relevant conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer